

POZARYSKA, K.

"Orthogenesis," Przeglad Geologiczny, Warszawa, No 8, Aug. 1954, p. 314.

"State Geological Board of the German Democratic Republic," p. 320.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

POZARYSKA, K.

POZARYSKA, K. What do we know about the continental shelf and slope? p. 161.

Vol. 2, no. 2, 1956  
KOSMOS. SERIA B: PRZYRODA NIEOZYWIONA.  
SCIENCE  
Poland

So: East European Accession, Vol. 6, No. 5, May 1957

PÓZARYSKA, Krystyna (Warszawa)

Iceland. Wszeszyt no.1:1-5 Ja '62.

POZARYSKA, KRYSTYNA

Zagadnienia sedimentologiczne gornego mastrychtu i danu okolic Pulaw.  
The sedimentological problems of Upper Maestrichtian and Danian of the Pulawy  
enviroment (middle Vistula). Warszawa, Wydawn. Państwowego Instytutu  
Geologicznego, 1952. 104 p. ( Państwowy Instytut Geologiczny. Biuletyn 81)  
[ English and Russian summaries. illus., bibl., table ]

SO: Monthly List of Acquisitions, Library of Congress, Vol. 3, No. 3  
East European March 1954, Uncl.

CA

J

Recent investigations of the ocean bottom. Krystyna  
Pozarynska (Univ. Warsaw, Poland). *Wiadomości Muzeum  
Ziemi* 5, 70-101(1950)(English summary).—A review.  
Michael Fleischer

B A

A 53

P

1348. Conductivity of the Annular Discharge. M. Polanyi, and S. Wachowski. *Comptes Rendus, Polonais*, 6, pp. 381-387, 1931. Polish Abstract. Following a discussion of the methods and results obtained by previous workers, an account is given of an experimental investigation of the conductivity of the gas in the annular discharge by a method in which auxiliary electrodes or probes are not used. The authors consider that such electrodes probably introduce errors. In the method described h.f. current is passed through two coils near to one another, of identical windings but arranged so that the currents in them circulate in opposite directions. A third coil, situated between the first two, is joined to a thermal junction and galvanometer and adjusted so that the galvanometer deflection is as small as possible when the gas in the glass sphere surrounded by one of the first two coils is at atmospheric pressure and no luminescent effects occur. As the gas pressure is reduced the annular currents and will represent, on some arbitrary scale, the strength of these currents. The results thus obtained show a very pronounced maximum for a particular pressure, which depends on the gas employed. For air the maximum is found at a pressure of about 0.0075 mm., for hydrogen at 0.0034 mm., and for oxygen at 0.0103 mm. The intensity of the h.f. current appears to have no effect whatever on the position of the maximum. The curve obtained for oxygen shows in addition to the pronounced maximum at 0.0103 mm. a slight elevation for a pressure of 0.13 mm.

A. W.

AD-514 METALLURG

POLARYSKI, Wladyслав

Poland's geological units. Przegl geol 11 no.1:4-10 Ja '63.

1. Instytut Geologiczny, Warszawa.

POZARYSKI, Wladyslaw

Outlines of Palaeozoic and Mesozoic tectonics of the Polish  
Lowland. Kwartalnik geol 8 no.1:1-41 '64

1. Zaklad Geologii Nizu, Instytut Geologiczny, Warszawa.

POZARYSKI, Wladyslaw

New absolute time scales of rocks. Przegl geol 10 no. 4/5:216.  
Ap-Mu '62

1: Instytut Geologiczny, Warszawa.

POZARYSKI, Wladyslaw

Geology of the Netherlands; her analogies in structure and geological problems with Poland. Przegl geol 10 no. 4/5:229-232. Ap-My '62

i. Instytut Geologiczny, Warszawa.

POZARYSKI, Wladyslaw

*Micropalaeontology. Review Pol Academy 5 no. 3/4: 114-116 Jl-D '60.*

1. Warsaw University Micropalaeontological Laboratory.

(Poland--Micropaleontology)

POZARYSKI, W.

Stratigraphy of the Pleistocene in Poland in the light of investigations of the eastern part of the uplands in central Poland. p. 269. PRZEGLAD GEOGRAFICZNY. POLISH GEOGRAPHICAL REVIEW. (Polska Akademia Nauk. Instytut Geografii) Warszawa.

SOURCE: East European Accessions List (EEAL), Library of Congress Vol. 5, No. 12, December 1956.

POZARYSKI, W.

Stratigraphy of the Pleistocene in Poland in the light of investigations of  
the eastern part of the uplands in central Poland.

p. 269  
Vol. 28, no. 2, 1956  
PRZEGLAD GEOGRAFICZNY  
Warszawa

SO: Monthly List of East European Acquisitions (EEAL), LC, Vol. 5, no. 12  
December 1956

POZARYSKI, Wladyslaw

Basic investigations of the Polish Lowland during prospecting for  
crude oil and natural gas. Przegl geol 8 no.10:515-516 0 '60.  
(EEAI 10:9)

(Poland--Petroleum) (Poland--Gas, Natural)

POZARYSKI, W.

"Micropaleontology in Czechoslovakia," Przeglad Geologiczny, Warszawa, No 3,  
June 1953, p. 7.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

POZARYSKI, WŁADYSŁAW.

"Plejstocen w Przelomie Wisły Przez Wyżyny Południowe. The Pleistocene  
in the Vistula gap Across The Southern Uplands. Warszawa, Wydawn. Geologiczne,  
1953. 134 p. (Warsaw Panstwowy Instytut Geologiczny. Prace, t. 9) (English  
and Russian Summaries. illus., Maps, bibl.)

Vol. 3, no. 6  
SO: Monthly List of East European Accessions./Library of Congress, June 1954, Uncl.

POZARSKI, WADYSLAW

"Plejstocen w przekroju Wisły przez wyżyny południowe. The Pleistocene in the Vistula gap across the southern uplands. Warszawa, Wydawn. Poligrafic., 1963. 134p. (Warsaw. Państwowy Instytut Geologiczny. Prace, tom 5) (French and Russian summaries. illus., maps, bibli., tables)"

SC: East European Acquisitions List, Vol 3, No 8, Apr 1974

POZARYSKI, Wladyslaw, prof. dr

Geologic area units of Poland. Nafta Pol 20 no.3:74-78  
Mr '64.

1. Instytut Gecologiczny, Warszawa.

PA 30173

POLAND/Phosphates

Feb 1947

"A Phosphate Deposit of the Northeastern Periphery of the Swiety Krzyz Mountains," Wladyslaw Pozaryski, 43 pp

"Biuletyn, Państwowy Instytut Geologiczny" No 27

The sedimentary phosphate deposit of the northeastern periphery of the Swiety Krzyz Mountains occurs in the sands of the Upper Albian and of the Lower and Middle Cenomanian. A continuous belt, running from Zawichost towards the northwest through the district of Ilza, far behind the railway line Radom - Skarzysko-Kamienne, together with an isolated inlay near Rachow (Arnopol), constitutes the line of outcrops of the

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POLAND/Phosphates (Contd) Feb 1947

deposit. It is suitable for exploitation only at Rachow, Chalupki and near Kryzanowice. The probable reserves are 2,403,000 tons of raw material, containing on the average 17% of P<sub>2</sub>O<sub>5</sub>.

POZARYSKI, WLADYSLAW

SI

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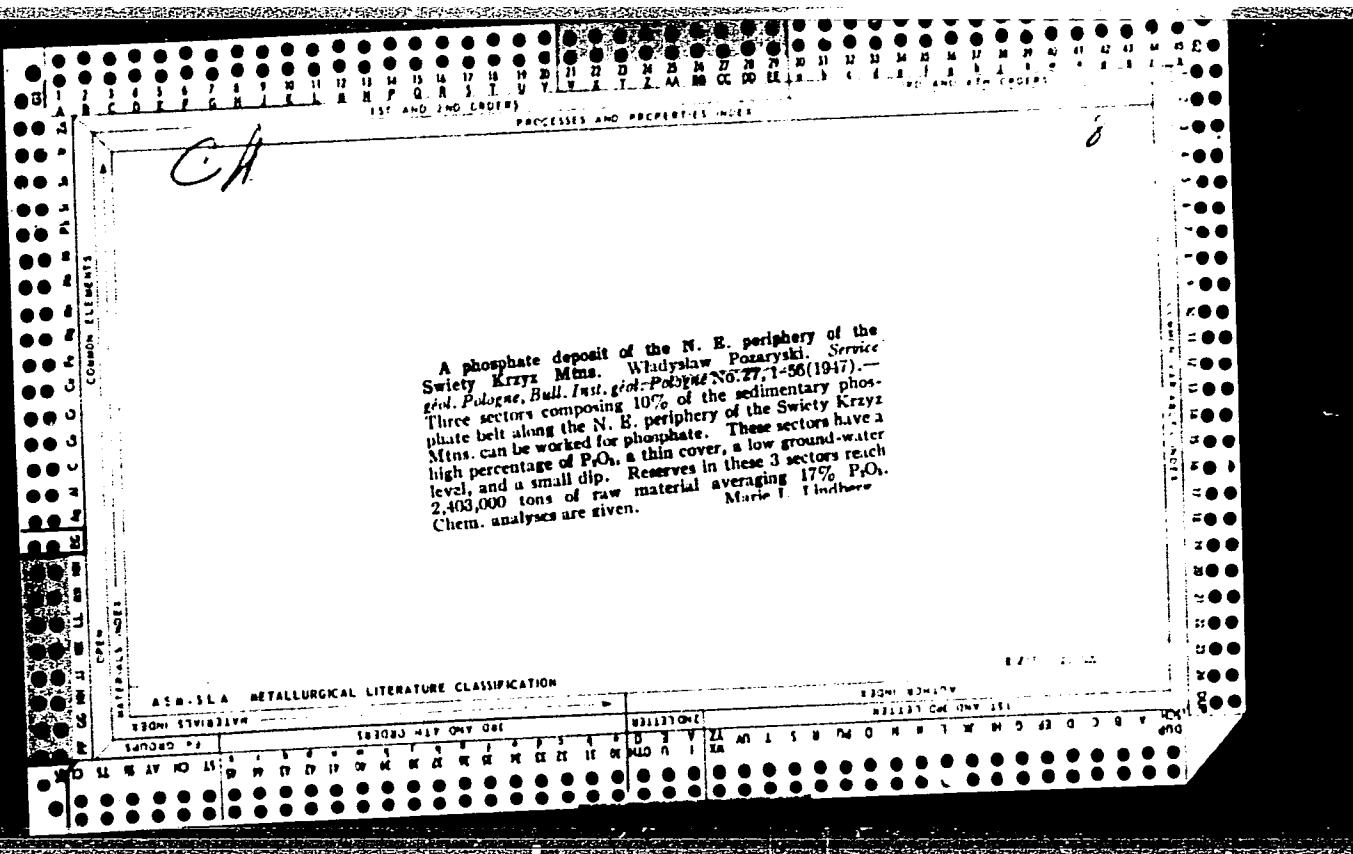
218. NATURAL GAS FROM DEEP BOREHOLE IN ALEXANDROW KUJAWSKI.  
Pozaryski, W. (Panstwowa Sluzba Geol., Panstwowy Inst. Geol. (Ser. Pol.  
Geol., Inst. Pol. Geol.), Bull. 58, 23-25; abstr. in Chem. Abstr.,  
10 Sept. 1951, vol. 45, 7482). Three analyses show methane 39.3 to 42.5  
and nitrogen 49.4 to 51.6%. G.A.

CA

J~

The natural gas from the deep bore-hole in Aleksandrów  
Kujawski. Włodzimierz Pozaryski. Państwowa Służba Geol.,  
Panstwowy Inst. Geol. (Ser. geol. Polonie, Inst. geol.  
Polonie), Bull. 58, 23-6(1949). - Three analyses show CH<sub>4</sub>  
39.3-42.5 and N 40.8-51.0%. Michael Fleischer

1951



ŁOŻARYSKI, W.

Gory Swietokrzyskie.

Warszawa, Poland. Wydawn. Geologiczne, 1958. 10 p.

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959  
Uncl.

I CZARYSKI, WŁADYSŁAW.

Wyzyna Lubelska.

Warszawa, Poland. Wydawn. Geologiczne, 1958. 10 p.

Montly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959  
Uncl.

POZARZECKI, Z

Bulgarian standardized buildings. p. 17. (Budownictwo Wiejskie, Vol. 8, No. 7,  
July 1956, Warsaw, Poland)

SO: Monthly List of East European Accessions (EEAI) LC, Vol. 6, No. 8, Aug. 1957  
Unclass.

PLANTMAN, J.

for technical procurement and its contribution to the industrialization and improvement in planning. . . .  
(MOSCOW INSTITUTE, ed. 1, m. 1, Apr. 1952, Moscow, Russia)

SRI: Monthly List of West European Acquisitions (U.S. E.I., Oct. , 1950, p. 10, 1950).  
Enc.

POZARZECKI, Z.

Prospects in the field of planning.

P. 4 (BUDOWNICTWO MIEJSKIE) Poland, Vol. 4, No. 6, June 1950

SO: Monthly Index of East European Acessions (AEEI) Vol. 6, No. 11, November 1957

POZARZECKI, Z.

An international conference on standardization in Berlin.

p. 28 (Budownictwo Wiejskie) Vol. 9. No. 9, Sept. 1957, Warszawa, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EAI) LC, VOL. 7, NO. 1, JAN. 1958

POZARZECKI, Z.

POZARZECKI, Z. "beds for young pigs built of substituete materials. p. 25

Vol 8, no. 11, Nov. 1956

BUDOWNICTWO WIEJSKIE

AGRICULTURE

Warszawa, Poland

So: East European Accession vol 6, no. 3, march 1957

POZARZECKI, Z.

POZARZECKI, Z. Spiral conveyers in farm buildings. p. 20. Vol. 3, no. 12,  
Dec. 1956. PUДOWNICTWO WILSKIE. Warszawa, Poland.

SOURCE: Fast European Accessions List (FEAL) Vol. 6, No. 4--April 1957

POZARZECKI, Z.

"Documentation of Designs and Estimates in People's Poland." P. 29.  
(BUDOWNICTWO WIEJSKIE, Vol. 6, No. 4, July/Aug. 1954. Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,  
No. 1, Jan. 1955 Uncl.

POZARZECKI, Z.

"Conference of activists of the Central Office for Designing Rural Buildings."  
Budownictwo Wiejskie, Warszawa, Vol 6, No 2, Mar./Apr. 1954, p. 27.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

POZBREZNIK, Fran, dr inz.

Some specific characteristics of Yugoslav natural waters for boiler feeding and industrial needs. Energija Hrv 13 br.3/A:116-117 '62.

POZBYUNIN, V. L.

PA 26T99

USSR/ Physics  
Electric Analogy  
Mathematics - Applied

September 1947

"Producing Flows by Means of Electric Scale Models," D. A. Efros, 8 pp

"Iz Ak Nauk, Tekh Nauk" No 9

There is wide use at present of electric models to solve many physical mathematical problems. The author gives formulae for making calculations with the data obtained from experiments and several diagrams showing how these various formulae can be used in determining how these various formulae can be used in determining various flow characteristics of objects. Work concludes with a short paragraph on more complex problems, which would be impossible to solve experimentally except for the use of electric models. Submitted by V. L. Pozbyunin at the Apr 1947 seminar of the Institute of Mechanics, Academy of Sciences of the USSR.

## EXCERPTA MEDICA Sec 15 Vol 12/12 Chest Dis. DEC 59

2846. EXPERIENCE IN THE TREATMENT OF PULMONARY TB AND TB OF THE SEROUS MEMBRANES WITH ACTH AND CORTISONE - Naše skúsenosti s liečbou ACTH a kortizónom pri tuberkulóze plúc a seróznych blán - Pozdechová E. and Glos J. Ftizeol. Kat., Slovenského Úst. pre Postgrad. Výchovu, Lek. Pod. Biskupiciach - LÉK. OBZ. 1958, 7/5 (268-275) Graphs 2  
Tables 2

In 47 patients with various forms of tb (32 patients with tb of the serous membranes, 9 with pulmonary tb and 6 with chronic specific thoracic empyema), the hormonal therapy generally lasted for 37 days. Male patients were given ACTH, female patients received cortisone. In the first 7 days 10 mg. ACTH was given by means of an i.v. infusion, in the following 7 days 100 mg. ACTH was administered i.m., then 75 mg. ACTH daily was given i.m. for 3 days; thereafter the daily dosage was 50 mg. Treatment with cortisone was as follows: the first 10 days 100 mg. was given i.m., the next 3 days 75 mg. and thereafter a daily dosage of 50 mg. was maintained. Excellent results were obtained in a group of patients with recently developed tb of the serous membranes, especially in meningitis (7 cases) and pleuritis (22 cases), in which the exudate disappeared within a fortnight. Chronic fibrocavitory pulmonary tb which had been refractory to the preceding tuberculo-static therapy and chronic specific thoracic empyema were also refractory to corticoid treatment. In a 52-year-old woman, treated only with ACTH, hirsutism and goitre developed during treatment, which disappeared after application of 'agovirin'. In a 15-year-old female patient mastopathy developed before the end of

EXCERPTA MEDICA Sec 6 Vol 13/11 Internal Med. Nov 59

6231. EXPERIENCE IN TREATMENT OF PULMONARY TB AND TB OF THE SEROUS MEMBRANES WITH ACTH AND CORTISONE - Naše skúsenosti s liečbou ACTH a kortizónom pri tuberkulóze plúc a serozných blán - Pozdechová E., and Glos J. Ftizeol. Kat. Slovenského Čst. pre Postgrad. Výchovu Lek., Pod. Biskupiciach - LÉK. OBZ. 1958, 7/5 (268-275) Graphs 2 Tables 2

In 47 patients with various forms of tb (32 patients with tb of the serous membranes, 9 with pulmonary tb and 6 with chronic specific thoracic empyema) the hormonal therapy generally lasted for 37 days. Male patients were given ACTH, female patients received cortisone. In the first 7 days 10 mg. ACTH was given by means of an i.v. infusion, in the following 7 days 100 mg. ACTH was administered i.m., then 75 mg. ACTH daily was given i.m. for 3 days; thereafter the daily dosage was 50 mg. Treatment with cortisone was as follows: the first 10 days 100 mg. was given i.m., the next 3 days 75 mg. and thereafter a daily dosage of 50 mg. was maintained. Excellent results were obtained in a group of patients with recently developed tb of the serous membranes, especially in meningitis (7 cases) and pleuritis (22 cases), in which the exudate disappeared within a fortnight. Chronic fibrocavitory pulmonary tb which had been refractory to the preceding tuberculostatic therapy and chronic specific thoracic empyema were also refractory to corticoid treatment. In a 52-year-old woman, treated only with ACTH, hirsutism and goitre developed during treatment, which disappeared after application of 'agovirin'. In a 15-year-old female patient mastopathy developed before the end of the treatment, which regressed after administration of methylhydrostendiole.

(VI, 5, 15, 50)

CZECHOSLOVAKIA

BAJAN, A; POZDECHOVA, E; SCHWARTZ, E.

Chair

Phthisiological ~~EXAM~~/of SUDL (Ftizeologicka katedra SUDL),  
Pod. Biskupici (for all)

Prague, Rozhledy v tuberkulose, no 10, 1963, pp 691-696

"The Value of Some Laboratory Investigations Used in the  
Diagnosis of Childhood Tuberculosis."

POZDECHOVA, E.  
SURNAME, Given Name

(A)

Country: Czechoslovakia

Academic Degrees: [not given]  
Affiliation: Kraj TB Hospital (Krajska nemocnica tuberkulozy), Pod. Biskupice; Director:  
K. VIRSIK, MD.

Source: Prague, Rozhledy v Tuber [illegible]ose av Nemocech Plicnich, Vol XXI, No 6, July 61,  
pp 476-482.

Data: "Pulmonary Tuberculosis Associated With Diabetes."

Authors: POZDECHOVA, E.  
VIRSIK, K., MD  
NEVICKY, D.,

SD

CONFIDENTIAL - BY R/WK E.

Experiences with diagnosis and treatment of lung abscesses.  
Bratisl. lek. listy 45 no.3:169-177 15 Ag 1965.

I. krajska nemocnica tuberkuloz a chorob plucnych v Bratislavе-  
i. Pomoravskych Biskupiciach (riaditeľ doc. MUDr. K. Virsik) a  
Oddelenie nespäcifickych respiračných chorob (vedúci doc. MUDr.  
K. Virsik).

Pozdechova, E.

CZECHOSLOVAKIA/Pharmacology and Toxicology - Hormonal Preparations. V.

Abs Jour : Ref Zhur - Biol., No 2, 1959, 9206

Author : Pozdechova, E., Glos, J.

Inst :

Title : Our Experience in the Treatment of Tuberculosis of the  
Lungs and of the Serous Membranes with ACTH and Cortisone

Orig Pub : Lekar. obzor., 1958, 7, No 5, 268-275

Abstract : No abstract.

Card 1/1

- 14 -

POZDECHOVA, E.

SURNAME, Given Names

(initials)

(initials)

Country: Czechoslovakia

Academic Degrees: [not given]

Kraj TB Hospital (Krajska nemocnica tuberkulozy), Pod. Biskupice; Director:

Affiliation: K. VIRSIK, MD.

Source: Prague, Rozhledy v Tuberkulose av Nemocech Plicnich, Vol XXI, No 6, July 61,

pp 476-482.

Data: "Pulmonary Tuberculosis Associated With Diabetes."

Authors: POZDECHOVA, E.

VIRSIK, K., MD

NEVICKY, D.,

50

VERSIK, K., doc. dr.; PUDLOCHOVA, E., MUDr.

A critical view of the contemporary state of the fight against tuberculosis in Slovakia from the viewpoint of deficiencies in roentgenological and bacteriological mass screening. Česk. zdrav. 13 no.9:439-443 6 '65.

1. Krajska nemocnica tuberkulozy a chorob plucnych v Kod. Biskupiciach.

POZDEEVA, A.A.

CZECHOSLOVAKIA

ZHDANOV, S. I.; POZDEEVA, A. A.

Institute of Electrochemistry, USSR Academy of Sciences (Institut  
elektrokhimii, Akademii nauk SSSR), Moscow (for both)

Prague, Collection of Czechoslovak Chemical Communications, No 12,  
December 1965, pp 4143-4149

"On the mechanism of the reduction of tetraphenylcyclopentadiene on  
a mercury drop electrode."

POZDEMA, I.

Pozděna (I.), Polyák (Z.), & Blatný (C.). Влияние летней посадки Картофеля, пораженного вирусными заболеваниями, на улучшение состояния его здоровья. [The influence of summer planting of Potato, infected with virus diseases, on the improvement of its state of health.]—За сон. сельскохоз. Науку, Сер. А [Socialist. agric. Sci., (Czechoslovakia), Ser. A], 3, 2, pp. 160-169, 1954.

In field trials in Czechoslovakia progenies from summer-sown (July, 1951) potato crops infected with potato virus Y [R.A.M., 33, p. 552] planted in April, 1952, showed a significant disease reduction, 5.8 per cent. (Erstling) [Duke of York] and 2.9 (Triumph) less than in the progenies from spring-sown crops, virus symptoms being much weaker in 1952.

DOLEZHALOVA, Miloslava [Dolezalova, Miloslava], POZDENKA, Irzhi [Pozdena, Jiri]

Occurrence of the tobacco mosaic virus in tomato plants subject  
to sudden temperature variations. Biologia plantarum 3 no.4:  
265-269 '61.

1. Otdeleniye fitopatologii Biologicheskogo instituta, Cheko-  
slovatskaya akademiya nauk, Praga. Adres: Praha - Dejvice,  
Na Karlovce 1.

*POZDENA, (S)*

Pozděna (J.), Herweert (V.), & Blattný (C.). Tabák als Feldtest des Gesundheitszustandes der Kartoffeln und der Eignung der Lage für die Saatgutgewinnung — insbesondere was die aphidologische Beurteilung betrifft. [Tobacco as a field indicator of the sanitary condition of Potatoes and the suitability of the site for 'seed' production—especially as regards aphidological assessment.]—Čsl. Biol., 1, pp. 325-331, 1952. [Russian, with German summary. Abs. in Z. Pfl.Krankh., 61, 1, pp. 27-28, 1954.]

Healthy Samara tobacco plants set out in the field between potatoes in Czechoslovakia in July, 1951, developed symptoms of potato virus Y [P.A.M., 30, p. 67], transmitted by *Myzodes* [*Myzus*] *persicae*. The test should prove useful in further investigations to determine the suitability of particular sites for 'seed' production, as well as indirectly in the assay of aphicides. Three applications at weekly intervals of nicotine and pyrethrum-containing preparations reduced the aphid population by 90 per cent.

POZDENA, J.

Infiltration of plant viruses in a vacuum. Vacuum infiltration of  
plant viruses. Chekh.biol. 2 no.4:232-235 Ag '53. (MLRA 7:4)

1. Institut biologii ChSAN, fitopatologiya, Praga.  
(Virus diseases of plants)

POZDENA, J., and others

"Effect of the Summer Planting of Potatoes Attacked by Virus Diseases on the Improvement  
of Their Condition." p. 561. (SBORNÍK. AGRÁL. RADÁ A., Vol. 26, no. 6, Dec. 1953,  
Praha, Czechoslovakia)

So: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954/Unclassified

POZDENA, J.

Antigenic properties of stolbur. p. 366  
CESKOSLOVENSKA BIOLOGIE, Vol. 3, No. 6, Nov. 1954

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955  
Uncl.

POZDENA, Jiri; SVOBODOVA, Jarmila; PETRU, Eva; LIMBERK, Jaroslav;  
BLATTNY, Ctibor

Pea mosaic virus in Czechoslovakia. Cesk. biol. 4 no.6:371-383  
June 55.

1. Biologicky ustav CSAV, fytopathologie, Praha.  
(VIRUSES,  
pea mosaic virus)  
(PEAS,  
pea mosaic virus)

POZDENA, Jiri, inz., C.Sc.; CECH, Milan, inz., C.Sc.; KRIZ, Josef, inz.

Effect of heating on the activity of the hop infectious  
sterility virus. Rostlin výroba 9 no.1:85-88 Ja '63.

1. Ustav experimentalni botaniky, oddleni fytopatologie,  
Praha (for Pozdena and Cezh). 2. Vyzkumny ustav chmelarsky,  
Zatec (for Kriz).

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: not given

Affiliation: Biologic Institute, Czechoslovak Academy of Sciences,  
Department of Phytopathology, Prague (Biologicky Ustav CSAV  
oddeleni fytopatologie) (CSAV: Ceskoslovenska Akademie Ved)

Source: Prague, Biologia Plantarum, Vol 3, No 4, 1961; pp 265-269

Data: "On the Influence of Temperature Variations on the Occurrence  
of Tobacco Mosaic Virus (TMV) in Tomato Plants"

DOLEZALOVA, Miloslava

POZDENA, Jiri

CZECHOSLOVAKIA / Virology - Plant Viruses.

E

Abs Jour: Ref Zhur-Biol., No 9, 1958; 38189.

Author : Cech, M., Pozdena, J., Blatny, C.

Inst : Not given.

Title : Transmission of Infectious Hops Sterility by the  
Plant Sap.

Orig Pub: Ceskosl. biol., 1957, 6, No 2, 121-125.

Abstract: Transmission of hop virus by the sap is unsuccessful because tannins are present which inactivate the virus. To eliminate these, hop leaves are crushed in a solution consisting of 2 ml nicotine and 2 g sodium ascorbate in 100 ml of 0.1 N  $\text{Na}_2\text{HPO}_4$ . The protein is precipitated by ammonium sulfate. After dialysis the Virus protein is introduced into the leaves. The year of infection 3 plants of 9, and in the subsequent year 8 of 9 infected plants developed symptoms of infectious sterility and punctate mosaic.

Card 1/1

41

Pozdona, J.

CZECHOSLOVAKIA / General and Specialized ZOOLOGY.  
Insects. Insect and Nite Pests.

Abs Jour : Ref Zahr - Biol., No 10, 1956, No 44892

Authors : Pozdona, J.; Breck, J.

Inat : not given  
Title : The Effectiveness of Phenylethylformate Against  
the Grain Beetle *Stegobium paniceum* L.

Orig Pub : Zool. listy, 1956, 5, No. 2, 173-177.

Abstract : The experimental treatment of empty storage  
houses with the Czechoslovakian insecticide  
phenylethylformate (PEF) at an application  
rate of 90 ml/m<sup>3</sup> and 20° temperature completely  
destroyed the beetle *S. paniceum* in 25 minutes.  
The total destruction of the beetle *S. paniceum* in a biscuit storhouse occurred only at  
the expenditure of 240-250 ml/m<sup>3</sup> PEF. The

Card 1/2

CZECOSLOVAKIA / General and Specialized Zoology.  
Insects, Insect and Mite Pests.

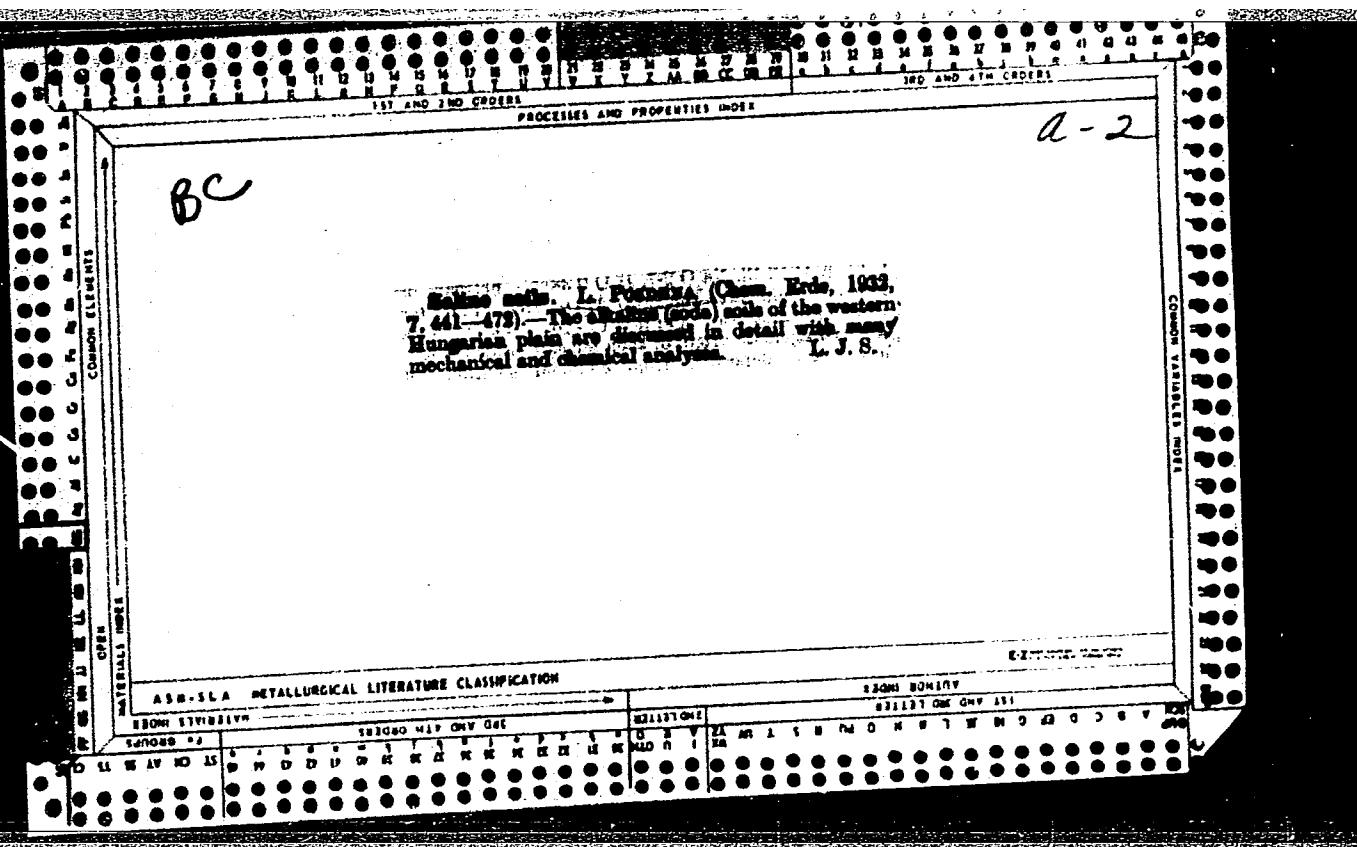
2

Abs Four : Ref Zhur. Biol., No 10, 1953, No 44092

The larvae of the parasite *Lariophagus ditin-*  
*guendus* in the beetle's body partially survi-  
ved the use of P.S., necessitating a combination  
of chemical and biological methods of control.  
... N. N. Dobrokhotov.

Card 2/2

51



BIKUS, D.I. inzh.; LISITSYN, Ye.A.; PLAVINSKIY, A.I., inzh.; POZDENKO, N.I.,  
inzh.

Water management in Moldavia. Gidr. i mel. 10 no.1:19-25 Ja '58.  
(Moldavia--Irrigation) (MIREA 11:2)

Pozdenko, N.I.

99-1-4/10

AUTHORS: Bikus, D.I., Lisitsyn, Yev A., Plavinskiy, A.I., and Pozdenko,  
N.I., Engineers

TITLE: Water Supply of Moldavia (Vodnoye khozyaystvo Moldavii)

PERIODICAL: Gidrotehnika i Melioratsiya, 1958, # 1, pp 19-25 (USSR)

ABSTRACT: The diversity of soil and climatic conditions prevailing in the Moldavian SSR demand intensive application of irrigation as well as drainage. Excellent results were obtained with irrigation at the Scientific-Research Institute for Irrigational Farming. Existing systems were expanded, and several new systems were recently built. At the end of the sixth Five-Year Plan a total of 34,000 ha are to be put under irrigation. According to state plans, 250,000 ha will be irrigated by 1970, at an expenditure of 1,785,000,000 rubles.

The diking and draining of the Dnestr lowlands and the island of Turunchuk, comprising a total of 27,000 ha, was started in 1951. In July 1957, the Moldavian Scientific-Research Institute for Irrigation Farming was established

Card 1/2

99-1-4/10

Water Supply of Moldavia

in conjunction with two experimental farms.  
There are 7 photographs.

AVAILABLE: Library of Congress

Card 2/2

POZDENV, V.V.; SIZOV, S.Yu.; SVETLOV, Yu. A.

Work of the Central Factory Laboratory fulfilling the  
decisions of the 22d Congress of the CPSU. Zav.lab. 28  
no.10:1265 '62. (MIRA 15:10)  
(Chemical laboratories)

L 00798-67

ACC NR: AP6027571

(N) SOURCE CODE: UR/0401/66/000/006/0028/0029

AUTHOR: Pozderin, B. (Senior Sergeant)

ORG: none

TITLE: Faster wire laying

SOURCE: Starshina-serzhant, no. 6, 1966, 28-29

TOPIC TAGS: detonation wire, communications wire, communication line, electric wire, wire laying, wire laying equipment/GAZ-63 truck

ABSTRACT: The author describes in detail a new device to speed up the laying of detonation wires in the ground during blasting operations which consists of a vertical blade attached to the trailer hook of a GAZ-63 truck. The blade is laid horizontally during transportation and held in place by a rod which is removed when the blade is used. The dispenser with the wire is placed at the back end of the vehicle, and as the wire unwinds, it passes along guiding rollers and a pipe and is laid in the 25-30 cm

22  
23

Card 1/2

600798-67

ACC NR: AP6027571

deep furrow dug by the blade while the truck moves at a speed of 5—7 km/hr. The  
device can also be used to lay communication lines. Orig. art. has: 1 figure.  
[GC]

SUB CODE: 13, 17/ SUBM DATE: none/

Card 2/2 mjs

RUMANIA/Farm Animals. General Problems.

Q

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78674.

Author : Buruiana, L. M.; Gluhovschi, N.;  
Dinu, I.; ~~Pozdere, R.~~

Inst : Institute of Agronomy.

Title : New Diluent of Sperm and Results Obtained in the  
Practice of Artificial Insemination.

Orig Pub: Anuarul lucrar. stiint. Inst. agron., 1957, 389-398.

Abstract: With the purpose of decreasing the viscosity of vaginal mucus in cows in heat, which represents a certain obstacle to the penetration of spermatozoa in the uterus, a new diluent was prepared for the sperm of bulls which contains: 1.5 g of anhydrous glucose, 0.7 g of citric acid sodium,

Card : 1/2

RUMANIA/Farm Animals. General Problems.

Q

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78674.

10 ml of egg yolk and 50 ml of a 1% pancreas extract. A vitelline-citrate diluent served as control. It was established that the pancreas extract strongly liquifies the vaginal mucous and increases the mobility and viability of the spermatozoa. Artificial insemination of 128 cows with sperm diluted with the new diluent increased their fertility by 12%: the percent of conceptions amounted to 90.7 as against 78.7 in the control. -- V. V. Polovtsova.

Card : 2/2

5

POZDERNIK, G. (UO5PK) (Tiraspol')

I have received a great satisfaction. Radio no.2:27-28 F 1/2.  
(MHz. 15:1)

(Radio operators) (Amateur radio stations)

POZDEYEV, A., prepodavatel' (Crsk)

Desks for dismounting and assembling operations. Za rul.  
19 no.9:22 S '61. (MRA 14:1C)  
(Automobiles--Study and teaching)

S/148/62/000/011/004/013  
EO81/E435

AUTHORS: Pozdeyev, A.A.; Tarnovskiy, V.I.

TITLE: Investigation of the stress state during forging in absence of lateral constraint

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no.11, 1962, 90-98

TEXT: The paper is a continuation of previous work (Deformatsii i usiliya pri obrabotke metallov davleniem - Deformations and stresses during pressure forming of metals - Mashgiz, 1959: Izv. VYS, Chernaya metallurgiya, no.1, 1962). If the strain velocity distribution in a metal forming process is known, the stresses can be found from the equilibrium equations, the equation of state and the boundary conditions. Assuming incompressibility of the material, a differential equation is set up for the mean hydrostatic pressure. The case of pure compression is considered on the assumption that the equation of state is represented by a hydrodynamic approximation, including a viscosity term, and that there is no slip at the contact surfaces. Expressions are derived for the normal and shear stresses and for the specific

Card 1/2

S/148/62/000/011/004/013  
E081/E435

Investigation of the stress state ...

force required to produce deformation under conditions of plane and axially symmetrical strain states. Results of calculations for stress distribution based on these equations are shown graphically. There are 4 figures.

ASSOCIATION: Ural'skiy politekhnicheskiy institut  
(Ural Polytechnic Institute)

SUBMITTED: July 18, 1960

Card 2/2

TARNOVSKIY, I.Ya.; POZDEYEV, A.A.; TARNOVSKIY, V.I.

Calculating metal pressure on the rolls during sheet rolling.  
Izv. vys. ucheb. zav.; chern. met. 7 no.8:84-92 '64.  
(MIRA 17/9)

1. Ural'skiy politekhnicheskiy institut.

TARNOVSKIY, I.Ya.; POZDEYEV, A.A.; ZYKOV, Yu.S.

Variational method of investigating the widening of plastic toughness metal during the hot rolling process. Izv. vys. ucheb. zav.; chern. met. 4 no.12:61-70 '61. (MIRA 15:1)

1. Ural'skiy politekhnicheskiy institut.  
(Rolling (Metalwork)) (Deformations (Mechanics))

POZDEYEV, A.A.; TARNOVSKIY, V.I.

Applying the method of hydrodynamic analogies to the theory  
of the press working of metals. Izv. vys. ucheb. zav.; chern  
met. 5 no.1:90-100 '62. (MIRA 15:2)

1. Ural'skiy politekhnicheskiy institut.  
(Forging--Models)  
(Hydraulic models)

TARNOVSKIY, I.Ya.; POZDEYEV, A.A.; ODINOKOV, Yu.I.; POPOV, V.M.

Investigating the flow rate area of a metal during rolling on  
large cogging mills. Izv. vys. ucheb. zav.; chern. met. 6  
no.7:96-105 '63. (MIRA 16:9)

1. Ural'skiy politekhnicheskiy institut.  
(Rolling (Metalwork)) (Deformations (Mechanics))

AUTHORS: Tarnovskiy, I. Ya., Pozdeyev, A. A. SOV/163--8-1-18/52

TITLE: Variation Methods in the Theory of the Processing of Metals  
Under Pressure (Variatsionnyye metody v teorii obrabotki  
metallov davleniyem)

PERIODICAL: Nauchnyye doklady vyschey shkoly. Metallurgiya, 1958, Nr. .  
pp 93-98 (USSR)

ABSTRACT: In order to explain the theory of the metal processing under pressure a variation method was employed. The state of deformation in the metals can be determined by means of equations (9) and (10). The variation method makes possible an approximate calculation of the function of the mixing and the deformation in the processing of metals. In a coordinate system the deformation rate is determined at a limited deformation. Numerous possibilities for the determination of the deformation in the metal processing under pressure were discovered by these equations. There are 17 references, 17 of which are Soviet.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnical Institute)  
Card 1/2

SCV/163-58-1-18/53

Variation Methods in the Theory of the Processing of Metals Under Pressure

SUBMITTED: October 5, 1957

Card 2/2

TARNOVSKIY, I.Ya., prof., doktor tekhn.nauk; POZDEYEV, A.A., dots.;  
PUCHKOV, S.G., inzh.

Deformation and force in making large forgings. Izv.vys.ucheb.  
zav.; chern.met. no.8:81-96 Ag '58. (MIRA 11:11)

1. Ural'skiy politekhnicheskiy institut.  
(Steel forgings) (Deformations (Mechanics))

SCV, 160-50-1-2 , 50

18(5)  
AUTHORS:

Tarnovskiy, I. Ya., Pozdeyev, A. A.

TITLE:

Mechanics of the Drawing Process of Solid Profiles Taking  
Into Account Consolidation (Mekhanika protsesса vlozheniya  
sploshnykh profiley s uchetom uprachneniya)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Metallurgiya, 1959,  
Nr 1, pp 97 - 104 (USSR)

ABSTRACT:

At first there is demonstrated that the determination of the optimum drawing angle  $\alpha$  and of the corresponding minimum pressure is a typical problem of variation calculation, if the conditions of the process are given (degree of stretching, conditions of external friction and the mechanical properties of the metal worked).  $2\alpha$  is the main characteristic of the reducing cone of the drawing pass. The problem is approached from the following variation principle of the mechanics of continua: The actual equilibrium shape of a body is distinguished from all other possible shapes by a minimum of the total deformation energy. The investigation is limited to a stabilized (steady) process of drawing. Hence it is more

Card 1/3

Mechanics of the Drawing Process of Solid Profiles  
Taking Into Account Consolidation

S.V. 1-19-1-1,5e

convenient to solve this problem by using the velocities at which deformation occurs. As drawing usually proceeds with a cold deformation, the consolidation is taken into account by introducing a coefficient of consolidation  $\kappa$ . Formula (9) for  $\kappa_{\text{optimum}}$  is derived. The calculations show that  $\kappa_{\text{optimum}}$  exhibits almost no dependence upon  $\lambda$ . The curves obtained show that  $\kappa_{\text{optimum}}$  increases with greater stretching and with a greater coefficient of internal friction, which is in agreement with the information gained by references 2 and 3. Formula (11) is derived for the calculation of the drawing pressure which can be simplified to formula (12), the application of which, however, is limited to certain conditions given in this paper. The diagrams obtained show that with an increase of  $\lambda$  the external friction force at the conical part of the drawing pass varies considerably. There are 5 figures and 6 Soviet references.

Card 2/3

Mechanics of the Drawing Process of Solid Profiles  
Taking Into Account Consolidation

SOV/103-19-1-26/5a

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural'skiy Polytechnical  
Institute)

SUBMITTED: April 7, 1958

Card 3/3

S/137/60/000/011/024/043  
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No.11, p.134, # 26336

AUTHORS: Tarnovskiy, I.Ya., Pozdeyev, A.A.

TITLE: Drawing of Compact Round Profiles

PERIODICAL: Tr. Mezhvuz. nauchno-tekh. konferentsii na temu: "Sovrem.dostizh. prokatn. proiz-va," Vol. 2, Leningrad, 1959, pp. 316 - 330

TEXT: The authors present a theoretical analysis of the process of drawing compact round profiles and derive formulae to determine the optimum angle of drawing and the corresponding minimum stress. A formula is derived which can be used to calculate the optimum value of angle  $\alpha$  under any given drawing conditions. ✓

D.T.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

TARNOVSKIY, I.Ya., prof., doktor tekhn. nauk; POZDEYEV, A.A., kand.  
tekhn. nauk; KOIMOGOROV, V.L., kand. tekhn. nauk

Calculating frictional forces in variational problems of  
metalworking by pressure. Stal' 22 no.6:538-539 Je '62.  
(MIRA 16:7)

(Metalwork) (Internal friction)

POZDEYEV, A.A.; TARNOVSKIY, I.Ya.; ZYKOV, Yu.S.

Principles of the theory of hot plastic deformation of metals  
during rolling. Izv. vys. ucheb. zav.; chern. met. 4 no.10:  
50-58 '61. (MIRA 14:11)

1. Ural'skiy politekhnicheskiy institut.  
(Rolling (Metalwork)) (Deformations (Mechanics))

TARNOVSKIY, I. Ya.; POZDEYEV, A.A.; PUCHKOV, S.G.

Deformation and stresses in drawing. Kuz.-shtam. proizv.  
2 no.6: 6-10 Je '60. (MIRA 13:10)  
(Drawing (Metalwork)) (Strains and stresses)

POZDEYEV, A.A.; TARNOVSKIY, V.I.

Calculating the trajectory of metal particles in the center of  
deformation during rolling. Izv.vys.ucheb.zav.; chern.met. no.7:82-86  
'60. (MIRA 13:8)

1. Ural'skiy politekhnicheskiy institut.  
(Rolling (Metalwork)) (Deformations (Mechanics))

TARNOVSKIY, I.Ya.; POZDEYEV, A.A.; OVTINOV, Yu.I.; POPOV, V.M.;  
CHICHIGIN, V.A.

Increase in metal width and the corresponding speeds of horizontal and vertical rolls on universal blooming mills. Izv. vys. ucheb. zav.; chern. met. 6 no.9:103-109 '63. (MIHA 16:11)

1. Ural'skiy politekhnicheskiy institut.

S/149/62/000/005/008/008  
A006/A101

AUTHORS: Pozdeyev, A. A., Tarnovskiy, I. Ya., Vaysburd, R. A., Orlov, S. N.

TITLE: On the calculation of force in pressing aluminum alloy rods

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya,  
no. 5, 1962, 145 - 155

TEXT: In order to develop methods of determining the force in pressure working of metals, the authors attempted the derivation of a formula to calculate the force in rod pressing, using direct methods of variation calculus. Force and pressure are calculated with the use of a rough, approximate metal flow diagram (Fig 1) where the container is divided into 3 sections, the velocity field is kinematically possible, and value "a" is the depth of deformation spread. The following simplified formula for the necessary force in pressing rods is derived:

$$\frac{P_c}{2\tau_s} = 1.1 + 1.15 \lg \lambda + 2 \sqrt{\frac{0.4\lambda + 0.6}{\lambda}} - 1 + 2.8 \frac{L}{D}; \quad (6)$$

$\lambda$  is the extrusion. The calculated data were experimentally checked and their

Card 1/4

S/149/62/000/005/008/008  
A006/A101

On the calculation of force in...

satisfactory agreement makes it possible to recommend the relation obtained for the determination of the pressing force for aluminum alloys. Calculations with the use of formula (6) are simple and do not yield indefinite results as e.g. Gubkin's formulae. Graphs are plotted to facilitate calculation (Figure 7). There are 2 tables and 7 figures.

ASSOCIATIONS: Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute)  
Kafedra obrabotki metallov davleniyem (Department of Pressure  
Working of Metals)

SUBMITTED: April 9, 1962

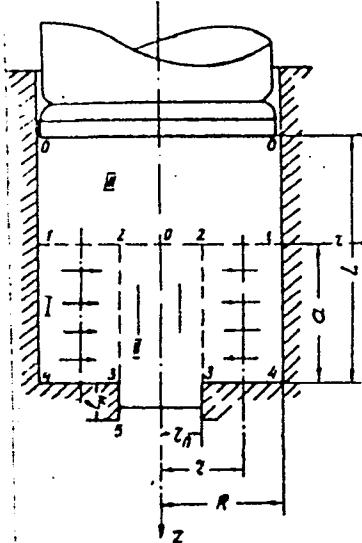
Card 2/4

On the calculation of force in...

S/149/62/000/005/008/008  
A006/A101

Figure 1. Kinematic diagram of metal flow and shear volumes in pressing rods from a round container

Legend:  $r_n$  is the rod radius;  $R$  is the container radius;  $L$  is the length of the pressed ingot;  $l_m$  is the length of the operational zone of the die;  $a$  is the depth of deformation seat spread (variable parameter)



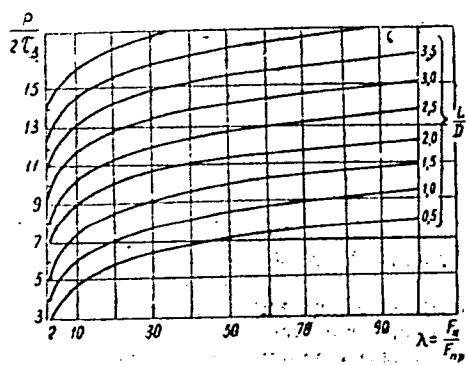
Card 3/4

S/149/62/000/005/008/002

A006/A101

On the calculation of force in...

Figure 7. Graph of function  $\frac{P}{2\tau_s} = f(\lambda; \frac{L}{D})$  for  $K = 1.4$   
( $K$  is  $\frac{\tau}{\tau_s}$ ;  $\tau_s$  is friction stress;  $\tau'$  is the shear yield point)



Card 4/4

L 41363-66 EWT(m)/EWP(j)/EWP(t)/ETI IJP(c) JD/NB/JAJ/RM

ACC NR: AP6022488

(A)

SOURCE CODE: UR/0064/66/000/004/0064/0065

AUTHOR: Antonovskaya, E. I.; Pozdeyeva, A. A.

ORG: none

TITLE: Use of titanium for apparatus employed in the synthesis of chlorinated organic compounds in a hydrogen atmosphere

SOURCE: 'Khimicheskaya promyshlennost', no. 4, 1966, 64-65

TOPIC TAGS: titanium, titanium alloy, corrosion, chlorinated organic compound, corrosion resistant metal, chemical plant equipment

ABSTRACT: The corrosion behavior of titanium and some of its alloys was studied under conditions of catalytic reduction of nitrochlorobenzene to chloroaniline at a hydrogen pressure of 200 kg/cm<sup>2</sup>, temperatures up to 200°C, and in the presence of 3 mole % of Cl<sup>-</sup> ions in the catalyst zone. The Ti alloys (VT1-1, OT-4, AT-3, VT5-1) were found to be highly corrosion-resistant, and their mechanical characteristics remained practically unaffected. Microstructural data obtained by studying a reactor wall made of VT1-1 after 2.5 years of operation under the above conditions showed the absence of titanium hydride. It was also found that hydrogen does not penetrate VT1-1, probably because of the protective action of films formed by the oxidation of titanium with atmospheric oxygen and with oxygen present in the technical hydrogen used (up to 0.3%). The results permit the authors to recommend VT1-1 alloy for the fabrication of appara-

Card 1/2

UDC: 661.723.1.546.821-13.05:620.197:669.295

L 41363-66

ACC NR: AF6022488

tus used in the production of chloroaniline. Orig. art. has: 3 figures and 2 tables.

SUB CODE: 07/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 009

Card 2/2 bdb

S/145/60/000/012/005/020  
A161/A133

AUTHORS: Tarnovskiy, I. Ya.; Khasin, G. A.; Pozleyev, A. A., and Meandrov, L. V.

TITLE: Plasticity of some steel grades at high temperatures

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no. 12, 1960, 63 - 69

TEXT: The conventional laboratory methods can only give indirect data on the plasticity in relation to one of the multitude of factors existing in real pressure working processes. It is therefore often better to use the simplest test methods - tension and impact bending. Eighteen alloy steel grades of different structure groups and applications have been tested using these common heat tests. The results are presented in tables and graphs. The 18 grades are divided into two groups - "a" and "b" (The chemical compositions are not included). The "a" includes: 45; 42A (U2A); 60C2 (60S2); 18KhBA (18KhNVA); ShKh5G (ShKh'5SG); X18H9T (X18N9T); 4X13 (4Kh13); X17H2 (Kh17N2); X18H2M2T (Kh18N12M2T); X18H25Cr (Kh18N25S2); X25105 (Kh25105); and the "b" - R18; X25H18

Card 1/6

Plasticity of some steel grades at...

S./48/60/000/012/005/020  
A1F1/A132

(Kh23N18); 1X13 (1Kh13); 4X14H14B2M (4Kh14N14V2M); 9N-481 (EI-481). Relative elongation ( $\delta$ , %) follows two different laws: a continuous rise from 800 to 1,200°C (Fig. 1, a), and a rise to a maximum and drop after it (Fig. 1, b). A common feature of the "b" group, except for Kh23N18, is the high carbide content. In the Kh9S2 grade  $\delta$  changes peculiarly (Fig. 1, c). It drops to almost a half and rises rapidly after the minimum at 900 - 1,100°C. Reduction of area ( $\gamma$ , %) follows the same law but with less varying absolute values. In the "a" group grades the  $\gamma$  grows continually (or stays at 100%), and in the "b" group it reaches the maximum at 1,000 - 1,100°C and goes down. An intense grain growth in the 900 - 1,100°C range is characteristic for Silchrome steel. In most of the steel grades  $\psi$  reaches 100% at 1,200°C or earlier, and in some cases it did not exceed 80-90%. Consequently, the trend of the plasticity indices  $\delta$  and  $\psi$  at high temperatures is practically the same, and they are equivalent until the formation of the neck on specimens, but after it the  $\psi$  value gives a more complete plasticity characteristic. Nevertheless, both factors should be considered in combination. The "a" group steel has the highest plasticity through the whole temperature range of hot pressure working, but it must be born in mind that in complex

Card 2/6

Plasticity of some steel grades at...

S/148/60/000/012/005/020  
A161/A333

stress conditions (e.g., tube piercing), the properties might be different, as well as that the obtained  $\delta$  and  $\psi$  values might not be true for (Kh18N9T, Kh18N2M2T and Kh17N2 in the case of a high ferrite content). Particular care is recommended in selecting the process parameters (temperature in particular) for the "b" group, for a large part of these grades contains a high quantity of primary carbides and includes low-melting eutectics in the cast structure. The impact strength ( $a_k$ ) drop with raising test temperature from 600 to 1,250°C was common for all investigated steel grades (Fig. 2). All grades (except Kh23N18) with  $a_k$  varying as 1 were the most plastic, the specimens bent without rupture; grades with an impact strength varying as 2 broke in tests with only few exceptions; they belonged to the group "b" in tension tests. The conclusion is that impact strength variation is opposite to the plasticity variation at a high temperature range and cannot be used for the plasticity indices in this case. It must always be evaluated jointly with deformation resistance test results in equal test conditions. The obtained data can be used to determine the optimum temperature range for different steel grades, as well as for subdividing the grades into groups for similar technological treatment. A further systematization of test data is advised. There are 3 tables and 2 figures.

Card 3/6

Plasticity of some steel grades at...

S/148/60/000/032/005/020  
A163/A733

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute)

SUBMITTED: March 22, 1960

Card 4/6

POZDEYEV, A.A.; TARNOVSKIY, I.Ya.; VAYSBURD, R.A.; ORLOV, S.N.

Calculating forces during the extrusion of aluminum alloy rods.  
Izv. vys. ucheb. zav.; tsvet. met. 5 no. 5:145-155 '62. (MIRA 15:10)

1. Ural'skiy politekhnicheskiy institut, kafedra obrabotki  
metallov davleniyem.  
(Extrusion (Metals)) (Aluminum alloys)

35221

S/148/62/000/001/006/015  
EG32/E414

18.1.200

AUTHORS: Pozdeyev, A.A., Tarnovskiy, V.I.

TITLE: Application of the method of hydrodynamic analogy to  
the theory of forming of metals

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy.  
Chernaya metallurgiya, no.1, 1962, 90-100

TEXT: This paper is concerned with problems in the theory of  
plastic flow as applied to the calculation of the stress-strain  
relation in the plastic deformation of metals. The theory is  
based on a synthesis of the method of hydrodynamic approximations  
and the energy principles of the mechanics of continuous media,  
which leads to solutions suitable for technological applications.  
The first section is concerned with the equation of state of a  
metal under the conditions of hot forming. Assuming that the  
stress state is linear, a relation is derived between the stress  
deviator  $D_\sigma$  and the deformation-rate deviator  $D_\dot{\gamma}$ , which  
involves the yield point, the rate of deformation and a constant  
characteristic of the particular material. This relation is shown  $\times$   
to be formally identical with the equation of state for visco-

Card 1/3

S/148/62/000/001/006/015  
E032/E414

Application of the method ...

plastic flow reported by the present authors and others in a previous paper (Ref.1: Mechanical properties of steel in hot forming. Metallurgizdat, 1960). The second section is concerned with the derivation of a variational equation on the basis of the hydrodynamic model of a continuous medium which was put forward by A.A.Il'yushin and V.S.Lenskiy (Ref.3: Izv. AN SSSR, OTN, 1958, no.2; Ref.4: The strength of materials. Fizmatgiz, 1959). The hydrodynamic model is based on the assumption that the state of a metal can be described by the following relation between the stress and deformation-rate deviators:

$$D_{\sigma} = 2\mu [1 - \omega(H)] D_{\dot{\gamma}} \quad (5)$$

where  $\omega(H)$  is a certain function which is given by the difference between the experimental stress-strain curve and the straight line obtained as a first approximation on the hydrodynamic model;  $\mu$  is the viscosity. The final variational equation turns out to be a linear functional. The general method is then applied to the determination of the deformed state of a parallelepiped. Some numerical results for this case are given.

Card 2/3

S/148/62/C00/C01/C06/C15

E032/E414

Application of the method ...

It is shown that in a large class of problems of the theory of pressure forming, the first approximation of the hydrodynamic model is sufficient. This is deduced from a comparison with the experimental data of I.Ya.Tarnovskiy and others (Ref.5: Deformation and stresses in forming metals. Mashgiz, 1959). The final section is concerned with the deformed state in axially symmetric deformation by upsetting between two plane-parallel plates. The general conclusion is that the method of hydrodynamic analogy can be used to overcome the various mathematical difficulties and yields relatively simply the deformed state as required in various technological operations. There are 3 figures and 1 table.

ASSOCIATION: Ural'skiy politekhnicheskiy institut  
(Ural Polytechnical Institute)

SUBMITTED: July 18, 1960

X

Card 3/3

IL'YUSHIN, A.A.; POZDEYEV, A.A.; TARNOVSKIY, I.Ya.; TARNOVSKIY, V.I.

Applying the method of hydrodynamic approximations to variational  
problems of plastic flow. Inzh,zhur. 1 no.4:59-67 '61.  
(MIRA 15:4)

(Plasticity)

POZDEYEV, A.A.; TARNOVSKIY, V.I.; YAKHMEYEV, V.I.

Prospects for applying the theory of creep and its application toward calculation of processes in metalworking by profile.  
Izv. vys. ucheb. zav., chern. met. 8 no.11:62-62 '65.  
(MIRA 1965)

1. Ural'skiy politekhnicheskiy institut.